

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference MXG-PE60501	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, Item 5 below.	
International application No. PCT/EP2004/010129	International filing date (day/month/year) 09/09/2004	(Earliest) Priority Date (day/month/year) 12/09/2003
Applicant GLAXO GROUP LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

QUINOLINE COMPOUNDS AND PHARMACEUTICAL COMPOSITIONS CONTAINING THEM

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

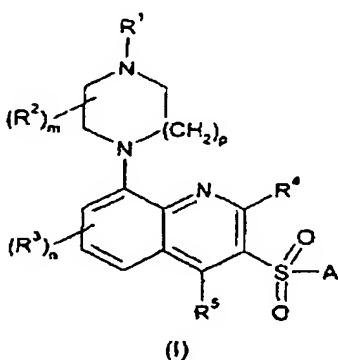
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Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

This application relates to quinoline compounds of formula (I) having pharmacological activity, to processes for their preparation, to compositions containing them and to their use in the treatment of CNS and other disorders.



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International Application No
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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D215/40 A61K31/4706 A61P25/18 A61P25/28 A61P25/22
A61P3/04

According to International Patent Classification (IPC) or to both national classification and IPC:

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/100822 A (JENMALM JENSEN ANNIKA ; MOTT ANDREW (SE); THOR MARKUS (SE); BIOVITRUM) 19 December 2002 (2002-12-19) page 3, line 10 - line 18; claims 1,17-24; tables I-VI	1,3-8
A	WO 00/63203 A (ALLELIX BIOPHARMA) 26 October 2000 (2000-10-26) claims 1,17-20	1,3-8
A	US 6 251 893 B1 (SLASSI ABDELMALIK ET AL) 26 June 2001 (2001-06-26) claims 1,25,29,30	1,3-8
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

23 November 2004

Date of mailing of the international search report

06/12/2004

Name and mailing address of the ISA

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Hass, C

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	WO 03/042208 A (BOETTCHER HENNING ; MERCK PATENT GMBH (DE); VAN AMSTERDAM CHRISTOPH (D) 22 May 2003 (2003-05-22) page 24, compound Ia claims 1,6-14 -----	1,3-8
A	WO 03/037872 A (HAEBERLEIN MARKUS ; SOHN DANIEL (SE); ASTRAZENECA AB (SE); DAVENPORT T) 8 May 2003 (2003-05-08) abstract; claims 1,41-43; examples 88-91,98-100 -----	1,3-8
A	WO 03/037871 A (HAEBERLEIN MARKUS ; SOHN DANIEL (SE); ASTRAZENECA AB (SE); DAVENPORT T) 8 May 2003 (2003-05-08) abstract; claims 1,41-43; examples 88-91,98-100 -----	1,3-8
A	WO 00/42026 A (CORNELIS DE JONG JOHANNES ; KODRA JANOS TIBOR (DK); PETTERSON INGRID V) 20 July 2000 (2000-07-20) cited in the application claims 1,51,52; examples -----	1,3,4
A,P	WO 03/080580 A (JOHNSON CHRISTOPHER NORBERT; WADE CHARLES EDWARD (GB); AHMED MAHMOOD) 2 October 2003 (2003-10-02) claims 1-20,22-30 -----	1-8

Form PCT/ISA/210 (continuation of second sheet) (January 2004)

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos. —
because they relate to subject matter not required to be searched by this Authority, namely:
Although claim 8 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/010129

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02100822	A	19-12-2002	BR 0210291 A	13-07-2004
			CA 2445653 A1	19-12-2002
			EP 1412325 A1	28-04-2004
			WO 02100822 A1	19-12-2002
			US 2003158202 A1	21-08-2003
WO 0063203	A	26-10-2000	WO 0063203 A1	26-10-2000
			AU 3403599 A	02-11-2000
			CA 2370147 A1	26-10-2000
			EP 1173432 A1	23-01-2002
			JP 2002542241 T	10-12-2002
US 6251893	B1	26-06-2001	AT 251163 T	15-10-2003
			AU 765256 B2	11-09-2003
			AU 4253199 A	05-01-2000
			CA 2335285 A1	23-12-1999
			WO 9965906 A1	23-12-1999
			DE 69911798 D1	06-11-2003
			DE 69911798 T2	01-07-2004
			DK 1105393 T3	09-02-2004
			EP 1105393 A1	13-06-2001
			ES 2209525 T3	16-06-2004
			JP 2003523922 T	12-08-2003
WO 03042208	A	22-05-2003	BR 0214046 A	13-10-2004
			CA 2467081 A1	22-05-2003
			WO 03042208 A1	22-05-2003
			EP 1444229 A1	11-08-2004
WO 03037872	A	08-05-2003	CA 2465350 A1	08-05-2003
			EP 1451158 A1	01-09-2004
			WO 03037872 A1	08-05-2003
WO 03037871	A	08-05-2003	BR 0213748 A	19-10-2004
			CA 2465344 A1	08-05-2003
			EP 1451157 A1	01-09-2004
			WO 03037871 A1	08-05-2003
WO 0042026	A	20-07-2000	AU 3033500 A	01-08-2000
			WO 0042026 A1	20-07-2000
			EP 1147094 A1	24-10-2001
			JP 2002534512 T	15-10-2002
WO 03080580	A	02-10-2003	WO 03080580 A2	02-10-2003